**Sub Code/Name : 18CSS202J Computer Communications**

| **Q.No** | **Question** |
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| 1 | PPP provides the \_\_\_\_\_\_\_ layer in the TCP/IP suite. a) Link b) Network c) Transport d) Application |
| 2 | In \_\_\_\_\_ , no station is superior to another and none is assigned control over another.  a) Random access b) Controlled access  c) Channelisation d) CRC |
| 3 | In Go-Back-N window, when the timer of the packet times out, several packets have to be resent even some may have arrived safe. whereas in Selective Repeat window, tries to send \_\_\_\_\_\_\_\_\_\_\_  a) Packet that have not lost b) Packet that have lost or corrupted c) Packet from starting d) All the packets |
| 4 | A network using CSMA/CD has a bandwidth of 10 Mbps. If the maximum propagation time (including the delays in the devices and ignoring the time needed to send a jamming signal, as we see later) is 25.6 μs, what is the minimum size of the frame?  a) 64 bytes b) 64Kb c) 32 bits d) 32 bytes |
| 5 | In HDLC, the commands are sent by \_\_\_\_\_ station  a)Secondary b) Primary c) Combined d) Control |
| 6 | \_\_\_\_ frames are used for error and flow control purposes and hence contain send and receive sequence numbers in HDLC  a) Unnumbered b) Information c) Supervisory d) Error |
| 7 | In which technique does the sender waits for ACK for every data frame for it sends? a) Go back N b) Selective Reject c) Stop & wait d) Checksum |
| 8 | The communication protocol of the data link layer that is used to transmit multiprotocol data between two directly connected computers.  a) HDLC b) PPP c) Data link control d) Network layer |
| 9 | A Link Control Protocol (LCP) is used for a) Establishing, configuring and testing the data-link connection b) Establishing and configuring different network-layer protocols c) Testing the different network-layer protocols d) Debugging |
| 10 | Find the hamming distance between the 2 strings given:  1101 1001 and 1001 1101 a) 0 b) 1 c) 2 d) 3 |
| 11 | The computation of the shortest path in OSPF is usually done by \_\_\_\_\_\_\_\_\_\_\_\_ a) Bellman-ford algorithm b) Routing information protocol c) Dijkstra’s algorithm d) Distance vector routing |
| 12 | In OSPF header, which field is used to detect errors in the packet? a) Type b) Area ID c) Authentication type d) Checksum |
| 13 | EIGRP metric is \_\_\_\_\_\_\_\_ a) K-values b) Bandwidth only c) Hop Count d) Delay only |
| 14 | For default gateway you will use which of following command on Cisco router? a) IP default network b) IP default gateway c) IP default route d) Default network |
| 15 | How often does a RIPv1 router broadcast its routing table by default? a) Every 30 seconds b) Every 60 seconds c) Every 90 seconds d) RIPv1 does not broadcast periodically |
| 16 | \_\_\_\_ is used to Exchange routing information for the internet and is the protocol used between ISP which are different Autonomous systems a) EIGRP b) BGP c) OSPF d) RIP |
| 17 | Which of the following is true regarding RIPv2? a) It has a lower administrative distance than RIPv1 b) It converges faster than RIPv1 c) It has the same timers as RIPv1 d) It is harder to configure than RIPv1 |
| 18 | Default administrative distance of Static Route a) 0 b) 90 c) 100 d) 1 |
| 19 | Which statement is true regarding classless routing protocol? a) The use of discontinuous networks is not allowed b) Use of variable length subnet masks is permitted c) RIPv1 is a classless routing protocol d) IGRP supports classes routing within the same autonomous system |
| 20 | In EIGRP best path is known as the successor, where as backup path is known as \_\_\_\_\_\_\_\_\_\_ a) Feasible successor b) Back-up route c) Default route d) There is no backup route in EIGRP |

| 21 | PPP consists of \_\_\_\_\_\_\_\_components a) Three (encapsulating, the Domain Name system) b) Three ( encapsulating, a link control protocol, NCP ) c) Two ( a link control protocol, Simple Network Control protocol) d)Two ( a link control protocol, TCP) |
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| 22 | In PPP, the default maximum length of the information  field is \_\_\_\_\_\_\_\_  a)1000 bytes b)1500 bytes c) 2000bytes d) 2500bytes |
| 23 | The disadvantage of stop and wait protocol is  a)Error free communication channel does not exist  b) Acknowledgement may get lost c) Deadlock situation may occur d) All of these |
| 24 | Propagation delay depends on a) Packet length b) Transmission rate c) Distance between the routers d) Frame number |
| 25 | Which is used by many users to establish their home PC to the Internet via a phone-line connection  a)FTP b) PPP c) OSI d) PAR |
| 26 | A sender has a sliding window of size 15.First 15 frames are sent. The first acknowledgement received is ACK 15.The receiver is expecting which frame?  a) Frame 15 b) Frame 14 c) Frame 1 d) Frame 0 |
| 27 | In Cyclic Redundancy Check, The CRC indicates  a) The divisor b) The remainder c) The divisor d) The quotient |
| 28 | Which protocol does the PPP protocol provide for handling the capabilities of the connection/link on the network? a) LCP b) NCP c) Both LCP and NCP d) TCP |
| 29 | CSMA/CD (Carrier Sense Multiple Access with Collision Detection) is a data link layer protocol that does the following.  a) Allows client browser to request Web pages (objects) from a Web server  b) Efficient MAC protocol for classic Ethernet LANs  c) Shares use of a physical channel on a time slot basis  d) All of the above |
| 30 | When 2 or more bits in a data unit has been changed during the transmission, the error is called \_\_\_\_\_ a. random error b. burst error c. inverted error d. double error |
| 31 | The computation of the shortest path in OSPF is usually done by \_\_\_\_\_\_\_\_\_\_\_\_ a) Bellman-ford algorithm b) Routing information protocol c) Dijkstra’s algorithm d) Distance vector routing |
| 22 | Which one of the following algorithm is not used for congestion control? a. traffic aware routing b. admission control c. load shedding d. routing information protocol |
| 33 | EIGRP metric is \_\_\_\_\_\_\_\_ a) K-values b) Bandwidth only c) Hop Count d) Delay only |
| 34 | Which multicast address does the OSPF Hello protocol use? a) 224.0.0.5 b) 224.0.0.6 c) 224.0.0.7 d) 224.0.0.8 |
| 35 | Which protocol maintains neighbor adjacencies? a) RIPv2 and EIGRP b) IGRP and EIGRP c) RIPv2 d) EIGRP |
| 36 | LSP stands for a) Link Stable Packet b) Link State Packet c) Link State Protocol d) Link State Path |
| 37 | In EIGRP best path is known as the successor, where as backup path is known as \_\_\_\_\_\_\_\_\_\_ a) Feasible successor b) Back-up route c) Default routed) There is no backup route in EIGRP |
| 38 | Distance vector protocols use the concept of  a) split horizon b) Back-up route c) Hop Count d) Delay |
| 39 | BGP runs on the top of TCP port number \_\_\_\_\_.  a) 169 b) 178 c) 179 d) 1911 |
| 40 | Border Gateway Protocol (BGP) use the hop-count for shortest path, but hop-count in BGP’s case is a \_\_\_\_\_\_\_\_  a) router b) AS (Autonomous System) c)  switch d) BGP don’t use Hop-count |

Part B

| **Q.No** | **Question** |
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| 21(a) | What do you mean ARQ mechanism? Explain about any one error control protocol used. |
| 21(b) | Elaborate on the cyclic redundancy check error detection mechanism with an example. |
| 22(a) | Discuss about the distance vector routing protocol with the necessary routing tables. |
| 22(b) | Explain about the Enhanced Interior Gateway protocol with its features, types of packets and routing tables used. |
| 23(a) | Describe about the High Level Data Link Control protocol with the frame structure. |
| 23(b) | Explain about the path vector routing protocol in detail. |
| 24(a) | What do you mean by sliding window protocol? Distinguish between Go-back-N protocol and selective repeat protocol. |
| 24(b) | Compare HDLC and PPP protocol and explain about frame format used in both protocols. |
| 25(a) | Describe the working principle of Carrier sense multiple access with collision Detection (CSMA/CD) |
| 25(b) | Explain about Routing information protocols and List out the characteristics of two versions |
| 26(a) | Discuss how the link state routing uses Dijkstra’s algorithm to update the Routing tables. |
| 26(b) | Explain about the types of OSPF packet in detail. |